Title (en)

Oxide superconductor current lead and method of manufacturing the same, and superconducting system

Title (de)

Oxid-Supraleiter-Anschlussstück, Herstellungsverfahren und Supraleiter-Vorrichtung

Title (fr)

Conducteur de courant composé d'un oxyde supraconducteur et son procédé de fabrication, et système supraconducteur

Publication

EP 1860736 A2 20071128 (EN)

Application

EP 07015642 A 20040206

Priority

- EP 04002691 A 20040206
- JP 2003030057 A 20030206
- JP 2003070062 A 20030314
- JP 2003070507 A 20030314
- JP 2004028451 A 20040204
- JP 2004028470 A 20040204

Abstract (en)

An oxide superconductor current lead in which generation of Joule heat at joint portions with a system side conductor and a power supply side conductor is reduced with use of an oxide superconductor with less heat penetration into a super conducting equipment system is provided. A columnar oxide superconductor molten bodies (interelectrode superconductor 260, in-electrode superconductors 280a and 280b) are produced, the in-electrode superconductor 280a and a left end portion of the interelectrode superconductor 260 are placed into a power supply side metallic electrode 210, and the in-electrode superconductor 280b and a right end portion of the interelectrode superconductor 260 are similarly placed in a system side metallic electrode 211, then degassed joining metal is used to join them to form an oxide superconductor current lead 201, a power supply side conductor 5 from a power supply is joined to the power supply side metallic electrode 210, and a system side conductor 202 from a superconducting system side is joined to the system side metallic electrode 211 with use of respective clamps 203a and 203b.

IPC 8 full level

H01R 4/68 (2006.01)

CPC (source: EP US)

H01R 4/68 (2013.01 - EP US); Y10T 29/49014 (2015.01 - EP US)

Citation (applicant)

- JP H10326634 A 19981208 - TOSHIBA CORP, et al
- DE 19912080 C1 20001026 - KARLSRUHE FORSCHZENT [DE]
- JP H0997637 A 19970408 - CHODENDO HATSUDEN KANREN KIKI

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